## AMENDMENTS TO THE CLAIMS

1-27. (Cancelled)

28. (Previously Presented) An interface control device, comprising:

a support housing configured to be held by one hand of a user;

a user manipulatable member engageable and moveable by a single thumb of said user;

at least one sensor coupled to said user manipulatable member and operative to sense movement in a first and second degree of freedom and to generate at least one sensor signal associated with said movement;

said user manipulatable member moveable in a third degree of freedom and configured to cause a trigger signal to be sent to an application on a computer, said third degree of freedom approximately orthogonal to said first and second degrees of freedom; and

at least one actuator coupled to said interface control device, said actuator operative to provide a feedback force to said user,

wherein said interface control device is configured to be operated by said one hand of a user, and wherein said user manipulatable member is coupled to an arm member having rotary motion about a pivot point to provide motion in one of said first or second degrees of freedom, wherein said actuator is coupled to said arm member to output forces about said pivot point.

29. (Previously Presented) The interface control device as recited in claim 28 wherein said rotary motion of said arm member is limited to an arcuate path of less than ninety degrees.

30. (Previously Presented) The interface control device as recited in claim 28 further comprising a second actuator, and wherein said first actuator is grounded to said housing and wherein said second actuator is carried by said arm member.

31. (Previously Presented) The interface control device as recited in claim 28 wherein said user manipulatable member is a sliding contact member which can be moved in a linear degree of freedom approximately perpendicular to an axis of rotation of said arm member and in substantially the same plane as said rotary motion, thereby providing said motion in one of said first or second degrees of freedom.

32-34. (Cancelled)

35. (Previously Presented) An interface control device, comprising:

a support housing configured to be held by one hand of a user;

a user manipulatable member engageable and moveable by a single thumb of said user;

at least one sensor coupled to said user manipulatable member and operative to sense movement in a first and second degree of freedom and to generate at least one sensor signal associated with said movement;

said user manipulatable member moveable in a third degree of freedom and configured to cause a trigger signal to be sent to an application on a computer, said third degree of freedom approximately orthogonal to said first and second degrees of freedom; and

at least one actuator coupled to said interface control device, said actuator operative to provide a feedback force to said user,

wherein said interface control device is configured to be operated by said one hand of a user, and wherein a centering spring bias on said user manipulatable member may be electrically actuated by a signal received from said computer, allowing said interface control device to have a centering mode and a non-centering mode, selected by said computer.

36-51. (Cancelled)

52. (Previously Presented) An interface control device in communication with a computer for providing positioning signals to said computer for manipulating an image in a computer environment displayed on a screen by said computer, said device comprising:

a handheld support housing configured to be held by one hand of a user;

a user manipulatable member coupled to said housing and engageable and moveable by a single thumb of said user in two degrees of freedom relative to said housing, and configured with a contact surface configured to be contacted by said thumb;

at least one sensor coupled to said user manipulatable member and operative to sense movement of said user manipulatable member in said two degrees of freedom, said sensor operative to provide positioning signals;

at least one actuator coupled to said interface control device, wherein said actuator is operative to provide a feedback force to said user, and wherein said at least one actuator includes a first brake providing a drag in a first of said two degrees of freedom, and a second computer controlled brake coupled to said user manipulatable member and providing a drag in a second one of said degrees of freedom of said user manipulatable member; and

a thumb trigger sensor operative to detect a trigger command from said user and to cause a trigger signal to be sent to said computer, said trigger command including a pressing motion by said thumb causing said user manipulatable member to move in a trigger degree of freedom different from said two degrees of freedom, wherein said user manipulatable member is configured to allow said user to control said movement in said two degrees of freedom and perform said trigger command simultaneously using said single thumb on said contact surface, and

wherein said interface control device is configured to be operated by said one hand of a user, and wherein said user manipulatable member is coupled to an arm member having rotary motion about a pivot point and is a sliding member which can be moved along at least a portion of said arm member in a linear degree of freedom, and wherein said second brake outputs forces in said linear degree of freedom, wherein said first brake is coupled to said arm member to output forces about said pivot point.

53-63. (Cancelled)

64. (Previously Presented) An interface control device in communication with a computer for providing positioning signals to said computer for positioning an image displayed on a screen said device comprising:

a support housing configured to be held by one hand of the user;

a user manipulatable member coupled to said housing and engageable and moveable by a digit of said user in two degrees of freedom relative to said housing while said housing is held by said hand of said user, wherein at least one of said degrees of freedom is a rotary degree of freedom about an axis of rotation;

a spring return mechanism coupled to said user manipulatable member to provide a centering bias on said user manipulatable member toward a center position of said rotary degree of freedom when said user manipulatable member has been moved from said center position, wherein said spring return mechanism is electrically actuated by an external signal received from said computer, allowing said spring return mechanism to be selectively applied in a centering mode and allowing said spring return mechanism to have no effect in a non-centering model;

at least one sensor coupled to said user manipulatable member and sensing movement of said user manipulatable member in said two degrees of freedom, said sensor providing positioning signals which control said positioning of said image on said screen;

at least one actuator coupled to said user manipulatable member; and

a trigger sensor for detecting a trigger command from said user, said trigger command including a pressing motion causing said user manipulatable member to move in a trigger degree of freedom different from said two degrees of freedom.

65. (Previously Presented) The interface control device as recited in claim 64 wherein said external signal is controlled by a video game running on said computer.

66. (Previously Presented) The interface control device as recited in claim 64 wherein said spring return mechanism is coupled to a pivotable arm member providing said rotary degree of freedom, and further comprising a centering spring coupled to said user manipulatable member to provide a centering bias in another of said two degrees of freedom.

Claims 67-73 (cancelled).

74. (Previously Presented) An interface control feedback device in communication with a computer for providing positioning signals to said computer for manipulating an image in a computer environment displayed on a screen by said computer; said device comprising:

a support housing configured to be held by one hand of a user;

a sliding contact member engageable and moveable by a thumb of said user in two degrees of freedom relative to said support housing while said support housing is held by said hand of said user, one of said two degrees of freedom being a linear degree

of freedom, wherein said movement in said two degrees of freedom positions said image in two screen dimensions on said display device;

an arm member coupled to said sliding contact member, said arm member operative to rotationally move about a pivot point to provide motion in one of said two degrees of freedom, wherein said linear degree of freedom is approximately perpendicular to an axis of rotation of said arm member and is in substantially the same plane as said rotary motion;

at least one sensor coupled to said user manipulatable member and operative to sense movement of said sliding contact member in said two degrees of freedom, said sensor operative to provide positioning signals which control said positioning of said image on said display device;

at least one actuator coupled to said arm member to output forces about said pivot point, wherein said forces facilitate the selection of options or icons displayed on said display device based on feedback signals generated by an application running on said computer; and

a trigger sensor for detecting a trigger command from said user, said trigger command including moving said sliding contact member approximately orthogonally to said two degrees of freedom,

wherein said interface control device is configured to be operated by said one hand of a user.

75. (Previously Presented)) The interface control device as recited in claim 74 further comprising a second actuator to output forces on said sliding contact member in said

linear degree of freedom, and wherein said first actuator is grounded to said housing and wherein said second actuator is carried by said arm member.

76. (Previously Presented) The interface control device as recited in claim 74 wherein said image is a cursor controlled to move in two dimensions of said screen, wherein said cursor can be used to select an icon, wherein said trigger command selects said icon when said cursor is positioned over said icon.

77. (Previously Presented) The interface control device as recited in claim 74 wherein said image is a video game character provided in a video game environment.

78. (Previously Presented) An interface control feedback device in communication with a computer for providing positioning signals to said computer for positioning an image displayed on a display device, said device comprising:

a support housing configured to be held by one hand of a user;

a user manipulatable member engageable and moveable by a thumb of said user in two degrees of freedom relative to said support housing while said support housing is held by said hand of said user, wherein said movement in said two degrees of freedom positions said image in two screen dimensions on said display device;

at least one sensor coupled to said user manipulatable member and operative to sense movement of said user manipulatable member in said two degrees of freedom, said sensor operative to provide positioning signals which control said positioning of said image on said display device;

at least one actuator coupled to said user manipulatable member, wherein said actuator provides a force in at least one of said degrees of freedom of said user manipulatable member, wherein said force facilitates the selection of options or icons displayed on said display device based on feedback signals generated by an application running on said computer, wherein a centering spring bias on said user manipulatable member is electrically actuated by a signal received from said computer in a centering mode, allowing said force feedback device to have said centering mode and a non-centering mode selected by said computer; and

a trigger sensor for detecting a trigger command from said user, said trigger command including moving said user manipulatable member approximately orthogonally to said two degrees of freedom,

wherein said interface control device is configured to be operated by said one hand of a user.

79-90. (Cancelled)

91. (Previously Presented) A device comprising:

a housing configured to be held in one hand such that no additional support is needed to operate the device;

a user manipulatable member coupled to said housing and configured to be manipulated by a single digit of a user in two degrees of freedom, wherein said user manipulatable member comprises an arm member operable to rotate in said rotary degree of freedom, and [wherein said user manipulatable member further comprises] a sliding

contact member operable to move in a linear degree of freedom approximately perpendicular to an axis of rotation of said arm member;

a sensor coupled to said user manipulatable member and operative to sense movement of said user manipulatable member in said two degrees of freedom, wherein one of said two degrees of motion comprises a rotary degree of freedom;

an actuator operative to provide a feedback force to said user;

a trigger operative to move in a degree of freedom different from said two degrees of freedom and configured to be actuated by said single digit simultaneously with said user manipulatable object,

wherein said device is configured to be operated by said one hand of a user.

92-94. (Cancelled)